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ABSTRACT

The responsibility for graduate education and the power and authority structure among graduate deans, college or school deans, departments, and faculty were studied using a sample of 338 schools. Attention was directed to the following concerns: institutional characteristics that are related to the organization and administration of graduate education; the professional backgrounds, attitudes, and activities of graduate deans; factors that influence graduate faculty and graduate teaching; and the impact of affiliation with the Council of Graduate Schools. Specific areas of study included: graduate program evaluation, graduate school control of academic processes, the availability of institutional funds in 14 areas necessary to quality education; support for grants acquisition; the personal backgrounds of graduate deans; job structure and responsibilities of deans; the evaluation of graduate deans; faculty advisory committees; satisfactions and frustrations of the graduate deanship; the structural position of teaching in American graduate education (teaching loads, tenure, resource allocation, merit salary); and correlates of unionization. Together with narrative analyses, 47 statistical tables are provided. (SW)

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GRADUATE DEANS AND GRADUATE EDUCATION
A NATIONAL STUDY

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GRADUATE DEANS AND GRADUATE EDUCATION: A NATIONAL STUDY

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Executive Summary

The problem addressed in this report is the arrangement within institutions of power, authority, and responsibility for graduate education among the graduate dean, college or school deans, departments, and faculty. The major questions are:

1. Which institutional characteristics are related to the organization and administration of graduate education?
2. What are the professional backgrounds, attitudes and activities of graduate deans?
3. What factors influence graduate faculty and graduate teaching?
4. What impact does affiliation with the Council of Graduate Schools in the United States have on graduate education?

The methodology employed was a questionnaire mailed to all CGS member institutions listed in the 1982 CGS Directory (376) and non-CGS member institutions which met or exceeded an enrollment of 200 (257). The total response rate was 53.4 percent (a 67.6 percent response rate for CGS members and a 32.7 percent response rate for non-CGS members). The major findings are:

1. The skew in the size of American graduate schools is severe.
2. Research and graduate education are not synonymous.
3. Faculty teaching quality is the factor most commonly used by graduate deans in judging program quality.
4. Administrative centralization of graduate education has not yet been achieved in many universities.
5. Research is not adequately supported in most universities.
6. There are few commonalities in the characteristics of American graduate faculties.
7. Graduate deans seem to be generally satisfied with the distribution of their work tasks.
8. Teaching is the most important factor in tenure decisions at most American universities.

9. Graduate deans concentrate their resources on good and outstanding programs.
10. Most universities reward both outstanding teaching and outstanding research with merit salary increments.
11. A majority of American graduate professors are primarily teachers, not researchers.
12. The situation of teachers, teaching departments, and teaching institutions is quite different from the situation of researchers, research departments, and research universities.
13. The causes of unionization in graduate institutions are probably largely idiosyncratic to the local setting.
14. The larger, better-funded graduate schools which emphasize research and publication are most likely to hold membership in the Council of Graduate Schools in the United States.

I

INTRODUCTION

Graduate education in the United States has expanded dramatically during the past twenty years. Increased numbers of institutions have begun to offer graduate programs in response to expressed student needs for continued intellectual growth, credentialing, and professional development. The key components of graduate education are qualified students, faculty committed to growth through scholarship, the creation and dissemination of knowledge, and a programmatic structure to facilitate the interaction between faculty and students. Colleges and universities have adopted a variety of organizational formats to facilitate the achievement of goals related to these components. The problem addressed in this study is the arrangement within institutions of power, authority, and responsibility for graduate education among the graduate dean, college or school deans, departments and faculty.

An initial review by the authors of the literature on graduate deaning and the organization and management of graduate education produced little in the way of empirical assessments of the issue with few exceptions. Proceedings of meetings of the Council of Graduate Schools in the United States together with a 1981 CGS publication entitled The Organization and Administration of Graduate Schools in the U.S. are primarily prescriptive. After consulting with a number of deans throughout the country, it was decided to initiate a national survey. We concluded that the survey would provide more useful data than other methods (e.g. case studies) given the types of research questions to be addressed.

Specifically those questions were:

1. Which institutional characteristics are related to the organization and administration of graduate education?

2. What are the professional backgrounds, attitudes and activities of graduate deans?
3. What factors influence graduate faculty and graduate teaching?
4. Does affiliation with CGS influence graduate education?

The questionnaire was developed and field tested during September and October of 1982. At the same time, the sample was defined. All institutions listed as CGS members in the 1982 CGS Directory were included (376). Those institutions which do not hold membership in CGS were identified through the 1982 edition of Peterson's Guide to Graduate Education (Butt, 1982). A numerical index was developed and applied to insure that such institutions reached an arbitrarily determined size before being included in the sample. Each full-time student enrollment as reported in Peterson's was weighted as "1" while each part-time enrollment was weighted as ".5". Those institutions which met or exceeded an index of 200 were included in the sample (257). The total sample size, then, was 633, consisting of 376 CGS member institutions and 257 institutions which were not members of CGS.

The questionnaire was mailed to the sample population on November 19, 1982. A follow-up questionnaire was sent to nonrespondents on January 21, 1983. The total number of questionnaires returned was 338, for a response rate of 53.4 percent; 84 were received from institutions which were not CGS members (a 32.7 percent response rate) while 254 were received from CGS members (a 67.6 percent response rate).

As a check on the representativeness of the sample, respondents were compared with non-respondents on four dimensions abstracted from Peterson's Guide to Graduate Education. No significant differences were found for highest degree offered and student body size. Thirty-nine percent of the non-respondents and 41 percent of the respondent institutions offer master's degrees only. The others

offer both master's and doctor's degrees. The frequency distributions for student body size are similarly close. For example, 15 percent of the respondent institutions have student bodies of over 20,000, as compared with 13 percent of the non-respondents.

Respondents and non-respondents show similar proportions of institutions with graduate student bodies of 500 or less and 501-1000. Responding institutions are underrepresented among graduate student bodies of size 1001-3000 and over-represented among those over 3000. This difference is statistically significant at the .05 level, but does not reach the .001 level. The only dimension showing systematic bias at the .001 level is source of funding, in which public institutions are overrepresented in the sample (69 percent to 55 percent) and both independent private (24 percent to 28 percent) and church-related private (8 percent to 17 percent) institutions are underrepresented.

Summarizing the data on sample representativeness, we can say that the sample is typical of the range and distribution of American graduate schools with respect to degrees offered and institutional size as indexed by student body size. At the same time, caution should be used in generalizing study results to church-related institutions and those with graduate student bodies of medium size (1001-3000), since they are underrepresented among the respondents.

Three graduate assistants entered data as questionnaires were received between December 1982 and April 1983. The Statistical Package for the Social Sciences (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975) was used to develop frequency distributions for each variable. Bivariate analysis was limited to Tau b, a correlational measure for ordinal data, because many of the variables are ordinal in nature. Unless they refer to a table or specifically cite the level of statistical significance, all relationships mentioned in this report may be assumed

to be statistically significant at the .001 level. Stepwise multiple regressions using listwise deletion for incomplete case data were calculated where multivariate analysis seemed appropriate. However, the ordinal level of some of the variables violates one of the technical assumptions of the procedure, so the regressions must be taken as no more than generally indicative of the multi-dimensional relationship involved.

II

GRADUATE EDUCATION AND RESEARCH ADMINISTRATION IN 338
AMERICAN INSTITUTIONS OF HIGHER EDUCATION

We begin this chapter by describing the basic characteristics of the 338 American graduate institutions that participated in the study. This leads to an examination of the graduate faculty and the way in which graduate programs are evaluated, both through formal processes and informally by the dean. A series of items on the administration of academic procedures and decision-making by the graduate school follows. The chapter concludes with sections on institutional funding for excellence in educational service delivery and the nature of graduate school support of activities directed toward the acquisition of extramural grants and contracts. These topics constitute a basic outline of contemporary graduate education in the United States.

Description of the Sample

Of the 338 graduate institutions which participated in the study, almost three-quarters reported that they were members of the Council of Graduate Schools in the United States. Sixty-three of 97 non-CGS member institutions noted their reasons for not participating in this national organization. Five institutions had either recently applied for membership or had recently initiated a graduate program while three indicated that applications had been rejected or that the institution did not meet CGS membership criteria. Twenty-seven noted that CGS membership was too expensive, and nine others noted that membership in other organizations met their professional needs.

Three hundred institutions reported membership in one of the regional organizations affiliated with CGS. Specifically, 92 are members of the Conference of Southern Graduate Schools, 97 belong to the Midwest Association of

Graduate Schools, 61 are affiliated with the Northeastern Association of Graduate Schools, and 50 are members of the Western Association of Graduate Schools. Participation in statewide organizations is not nearly as high. Fifty-four percent of the responding institutions belong to such an organization, while 3 percent do not belong, but are aware that an organization exists in their state. More than 43 percent report that no such organization exists in their state.

Fifty-nine percent of the respondents offer both masters and doctoral degrees while 41 percent offer the masters degree and specialist certificates (six year programs) only. One-fifth of both types of institutions offer fewer than 10 masters programs and a similar percentage offer more than 50 programs. One-third offer between 10 and 24 masters programs, while the remaining quarter field between 25 and 50 masters programs. The majority of doctoral granting institutions (54 percent) have fewer than 10 doctoral programs. An additional 20 percent have between 10 and 24 doctoral offerings, while 13 percent offer between 25 and 50 programs and the same proportion offer more than 50.

Responding institutions consisted of public sector colleges and universities (more than two-thirds) with the remainder unevenly split between independent private (24 percent) and church-related private sponsorship (8 percent). Similarly, geographic settings for institutions within the sample are unevenly divided between urban and metropolitan locations (71 percent) and small town and rural settings (29 percent).

Institutional size is reflected in the total number of students enrolled, the number of graduate students, and the number of full-time faculty. Few (14 percent) of the responding institutions have a total student population of 2,500 or less. Forty-five percent are within the range of 2,501 to 10,000 students, 25 percent between 10,001 and 20,000 and 15 percent greater than 20,000. The respondent institutions also vary widely in the number of graduate students

enrolled. More than 42 percent have graduate student bodies of less than 1,000. Mid-sized graduate populations (1,001 to 3,000) account for 38 percent of the sample, while large populations (more than 3,000) make up 20 percent of the sample. A final dimension of institutional size, the number of full-time faculty, shows 12 percent of the institutions with fewer than 150, 47 percent with between 150 and 499, 23 percent with between 500 and 1,000 and 18 percent with more than 1,000.

More than two-thirds of the graduate schools in the sample are staffed by three or fewer professionals; indeed, more than one-fifth have a single individual as the professional staff. Eighteen percent employ between four and eight professionals while 14 percent employ more than eight. The median number of professional staff is 2.46. Perhaps because of this notable shortage of professional staff, just over 26 percent of the respondent institutions assign faculty members on a temporary basis to work as administrators in the graduate school. The number of clerical personnel assigned to the graduate school is also relatively small. For example, 23 percent have only one clerical person, 34 percent employ two or three individuals, 26 percent are assigned between four and eight, and 17 percent have more than eight.

Graduate Faculty

The single most important ingredient in graduate education is the quality and performance of the faculty (although faculty can not perform up to their potential without adequate institutional support, properly administered). At more than three quarters of the institutions surveyed a doctorate or a comparable degree, except in the arts, is required for membership on the graduate faculty. Only 10 percent list the master's degree as a formal requirement, while the remaining 10 percent have no formal degree requirement. However, when the questions of lower teaching loads and requirement for involvement in research are

addressed, the commitment to quality becomes less clear. Almost one-third of the faculties have a teaching load of 11 or more semester credits. Over 40 percent teach between 8 and 10 credits, while one-quarter teach 7 or fewer credits. Similarly, fewer than half the deans reported that research activity was required for membership on the graduate faculty. Another measure of selectivity is the percentage of full-time faculty who are members of the graduate faculty. Nearly two-thirds of the universities within the sample report that 40 percent or more of the full-time faculty are members of the graduate faculty. On a related dimension, 40 percent of the graduate faculties devote 50 percent or more of their time to undergraduate education while fewer than 20 percent devote less than a quarter of their time to undergraduate education. Lastly, two-thirds of the respondents indicated that less than 10 percent of graduate courses are taught by part-time faculty.

Graduate Program Evaluation

Graduate programs are evaluated both formally and informally using a variety of mechanisms and criteria. Table 1 reports the frequency of formal evaluations. Fully 56 percent follow guidelines issued by the Council of Graduate Schools in the United States in conducting a detailed review of each program on a five to seven year cycle. Many are evaluated every two to four years (25 percent). The remainder are assessed annually (6 percent), at intervals greater than seven (8 percent) years, or never (5 percent). Groups that participate in the process include faculty (74 percent), administration (57 percent), and external evaluators (64 percent). Very few processes reportedly include input from students, alumni, or employers. The evidence suggests that the relatively new Educational Testing Service self-assessment packages for graduate programs are not in widespread use.

Table 1
Frequency of Evaluation of Graduate Degree Programs

Frequency of Evaluations	Number of Institutions	Proportion of the Sample
Annual	20	6 %
Two-four years	82	25 %
Five-seven years	188	56 %
More than seven years	25	8 %
Mixed types	3	1 %
Never	16	5 %
Total	334	101 %*

*Percentages do not sum 100 due to statistical rounding procedures.

On a more informal level, graduate deans exercise professional judgement in assessing the quality of graduate programs at their institution. Table 2 indicates that four of every five graduate deans judge fewer than 40 percent of their programs to be outstanding. Table 3 reflects the importance of various factors in the deans' assessments of graduate program quality. Teaching quality was most frequently reported as very important in the dean's judgement (62 percent) followed by faculty publication rates (41 percent), national reputation (34 percent), research grants acquired (33 percent), placement of graduates (31 percent), and quality and size of the pool of applicants accepted (30 percent). A correlational matrix of the relationships among several selected factors used by deans to judge graduate program quality is depicted in Table 4. In institutions where deans consider research grants to be important in assessing program quality, faculty publication rates tend to be viewed as important while teaching quality is less likely to be viewed as important. The higher the emphasis on publication rates, the lower the emphasis on teaching quality.

When deans consider student enrollment important in their assessment of program quality, teaching quality and the program's reputation within the institution are also likely to be important. A positive correlation exists between teaching quality and the program's internal reputation.

Graduate School Control of Academic Processes

In its 1981 publication entitled The Organization and Administration of Graduate Schools in the U.S., the Council of Graduate Schools described various systems for the administrative organization of graduate education. The degree of centralization of administration and organization was noted as a major difference among graduate schools. A decentralized system is one in which "authority and administrative controls are assigned to the deans of the various schools and colleges" (rather than the graduate dean) (CGS, 1981, p.7).

Table 2

Proportion of Graduate Programs Judged to be Outstanding by Graduate Deans

Proportion Judged to be Outstanding	Number of Institutions	Proportion of the Sample
None	22	7 %
1-19 percent	112	36 %
20-39 percent	114	37 %
40-59 percent	27	9 %
60-79 percent	21	7 %
80-100 percent	14	5 %
Total	310	101 %*

*Percentages do not sum 100 due to statistical rounding procedures.

Table 3
Importance of Various Factors in the Assessment of
Graduate Program Quality

Factor	Level of Importance*				N
	Very Important	Important	Somewhat Important	Not Important	
Research grants	33 %	38 %	22 %	8 %	330
Publications	41 %	38 %	16 %	4 %	333
Papers delivered	18 %	52 %	25 %	4 %	332
Conferences or workshops given	6 %	37 %	49 %	8 %	329
Enrollment	17 %	48 %	31 %	4 %	328
Teaching quality	62 %	33 %	4 %	0 %	333
Reputation in the institution	27 %	50 %	19 %	4 %	330
Reputation nationally	34 %	36 %	22 %	8 %	330
Quality and number of applicants	30 %	51 %	17 %	3 %	330
Student attrition	13 %	36 %	41 %	10 %	325
Number and quality of courses offered	22 %	37 %	31 %	9 %	329
Time requirements for degrees	3 %	33 %	48 %	16 %	331
Fellowship awards	12 %	36 %	32 %	19 %	328
Placement of graduates	31 %	50 %	15 %	5 %	330

*Where percentages do not sum 100, it is due to statistical rounding procedures.

Table 4

Relationships Among Selected Factors Used by Deans to Judge
Graduate Program Quality^a

	1	2	3	4	5
1. Research grants	X				
2. Publications	.69*** (330)	X			
3. Student enrollment	-.04 (325)	-.08 (328)	X		
4. Teaching	-.25*** (330)	-.29*** (333)	.31*** (328)	X	
5. Internal reputation	.04 (327)	-.08 (330)	.24*** (325)	.28*** (330)	X

^a All correlations shown are Tau b.

*** Significant at less than .001.

According to CGS, a highly decentralized system of graduate education, organization and administration has several potential drawbacks. Five of these drawbacks are described below.

- Today, more than ever before, there is a need for interdepartmental cooperation and participation in the development of programs. Too much decentralization creates communication gaps.
- Presently, graduate education suffers from the lack of an adequate data base. More comprehensive data are needed to support beneficial planning for graduate education. A decentralized system fractionates the acquisition and compilation of these data.
- The surveillance of quality of the institution's graduate degrees is an essential responsibility of the total graduate community. A decentralized system is likely to view the graduate programs as isolated parts rather than as an integrated system within the institution.
- A blurring of boundaries is developing between "graduate" and "professional" education. A highly decentralized system of organization favors the emergence of jurisdictional disputes.
- A decentralized system of organization fractionates and weakens the representation of issues involving graduate education to the university president's office and to the community outside the university. (CGS, 1981, p. 8)

Among the variables which could be used to assess the significance and power of the graduate school as well as that of the graduate dean are the degree of control over awarding financial support to graduate students, the extent to which professional schools are administered separately or as part of the graduate school, and control over the administration of graduate education.

Table 5 depicts graduate school control of student financial support mechanisms. In a majority of institutions the graduate school has the responsibility for directly awarding teaching assistantships, research assistantships, and fellowships. The shared control present in 12, 16, and 19 percent of the cases, respectively, presumably allows the graduate dean to influence such decisions. The national pattern, then, provides the graduate school with a significant vehicle to maintain the quality of the graduate student population.

Table 5

Graduate School Control of Student Financial Support Mechanisms

Support Mechanism	Control Configuration*			N
	Graduate School Control	Other Unit Control	Shared Control	
Teaching Assistantships	60 %	27 %	12 %	274
Research Assistantships	51 %	34 %	16 %	253
Fellowships	62 %	20 %	19 %	225

*Percentages do not sum 100 due to statistical rounding procedures.

Table 6 describes the source of administrative control of graduate education. The general pattern is that the graduate school has authority in those areas which affect the quality of the graduate student population. Departments are actively involved in such decisions, but college and school deans are not. College and school deans appear to have limited control over fellowships and other financial aid, probably due to the relative size of the resources at their disposal. Further, college deans have limited responsibility for overseeing the quality of student services. If the degree of centralization of graduate education is measured by source of administrative control, then most graduate schools are centralized. However, a significant proportion of graduate schools remain in an uncentralized state.

Another perspective on centralization is provided by Table 7 which describes graduate school administration of professional school graduate programs. For both business and education the dominant pattern is for the graduate school to exercise administrative control. Schools of law reflect great independence from graduate schools, while medical schools reflect an even split between centralized and decentralized control.

Funding for Excellence

Most graduate deans reported that institutional funding was excellent or good for the purchase of library books and journals, for offering graduate courses, for graduate teaching assistantships, and for sabbaticals to both improve knowledge and conduct research. Conversely, institutional funding was often poor or fair for travel to conferences and to develop grants, for research by both senior and untenured faculty, for grant development personnel, and for graduate research equipment. Table 8 suggests that deans view institutional funding for more traditional areas as adequate, but believe that funding for research and development falls short of their expectations.

Table 6
Administrative Control of Graduate Education Functions

Function	Source of Administrative Control*		
	Graduate School	Department	College or School Dean
Admission	79 %	36 %	11 %
Reviewing academic progress	66 %	59 %	13 %
Fellowships, other financial aid	72 %	36 %	21 %
Appointing qualifying, thesis, dissertation committees	52 %	61 %	10 %
Certifying graduation	84 %	25 %	14 %
Overseeing student services	64 %	23 %	22 %

N = 338

*Categories are not mutually exclusive.

Table 7

Graduate School Administration of Professional School Graduate Programs

School	Administrative Pattern*			N
	Graduate School Administers	Professional School Administers	Mixed Type	
Business	82 %	17 %	1 %	269
Education	87 %	12 %	1 %	276
Law	19 %	80 %	1 %	84
Medicine	45 %	51 %	5 %	85

*Where percentages do not sum 100, it is due to statistical rounding procedures.

Table 8
Availability of Institutional Funds for Quality Education

Funding Area	Funding Availability*				N
	Poor	Fair	Good	Excellent	
Travel to conferences	21 %	42 %	29 %	8 %	338
Travel to develop grants	35 %	33 %	26 %	7 %	328
Research by senior faculty	25 %	46 %	26 %	4 %	329
Research by untenured faculty	27 %	37 %	31 %	5 %	329
Computers	14 %	37 %	39 %	9 %	326
Research equipment	22 %	45 %	30 %	3 %	322
Library books	8 %	35 %	45 %	12 %	329
Library journals	8 %	38 %	43 %	11 %	320
Grant development personnel	27 %	37 %	29 %	7 %	314
Offering graduate courses often enough	6 %	23 %	56 %	15 %	320
Graduate research assistants	29 %	34 %	31 %	6 %	302
Graduate teaching assistants	22 %	29 %	37 %	12 %	304
Sabbaticals to improve knowledge	21 %	21 %	37 %	21 %	326
Sabbaticals to do research	22 %	21 %	34 %	23 %	321

*Where percentages do not sum 100, it is due to statistical rounding procedures.

Support for Grants Acquisition

The role of the graduate school in acquiring extramural grants and contracts was assessed by surveying administrative placement of the grants unit, signature authority for grant proposals, and grant assistance provided to faculty by the graduate school.

Table 9 shows that most institutions within the sample house the grants unit in either the graduate school, the office of the academic vice-president or provost, or the research and development unit. Signature authority is less likely than the administrative housing of the grants unit to be found in the graduate school. In nearly two-fifths of the institutions, signature authority is vested solely in the president or academic vice-president. Another fifth of the institutions require multiple signatures, most often including the graduate dean. The graduate dean has sole signature authority in one out of every five universities (see Table 10).

Table 11 suggests that about three-fourths of graduate schools surveyed provide at least some grant assistance to faculty. Help in identifying funding sources and in developing budgets is provided most frequently while assistance in contacting funding sources and in administering internal research funds is provided less frequently. Just over a third of the graduate schools provide typing support to faculty, reflecting limits on the size of clerical staff.

Graduate deans often have responsibilities for the supervision of grants units, approving grant proposals before submission to external agencies and providing supportive services to faculty who are in the process of developing grants. However, this is less often found than one would assume from the common identification of graduate education with research, subsuming publication and grant activity.

Table 9

Administrative Placement of the University Grants Unit

Administrative Area	Number of Institutions	Proportion of the Sample
Graduate school	92	27 %
Academic vice president, provost	63	19 %
Research and development unit	44	13 %
Financial vice president	27	8 %
President	16	5 %
Grants office	5	2 %
University or institutional relations	4	1 %
University foundation	3	1 %
Other*	16	5 %
Mixed types	44	13 %
No grants unit	24	7 %
Total	338	101 %**

*No more than two institutions have the same pattern.

**Percentages do not sum 100 due to statistical rounding procedures.

Table 10
Signature Authority for Grant Proposals

Administrator	Number of Institutions	Proportion of the Sample
President	67	20 %
Academic vice president, provost	64	19 %
Graduate dean	63	19 %
Director of the grants unit	24	7 %
Financial vice president	21	6 %
Administrative vice president	3	1 %
Associate vice president	3	1 %
Vice chancellor for research	3	1 %
Other administrators*	20	6 %
Multiple signatures, including graduate dean	41	12 %
Multiple signatures, excluding graduate dean	26	8 %
Nobody designated	3	1 %
Total	338	101 %**

* No more than two institutions have the same pattern.

** Percentages do not sum 100 due to statistical rounding procedures.

Table 11

Grant Assistance Provided to Faculty by the Graduate School

Form of Assistance	Number of Institutions	Proportion of the Sample
Identifying funding sources	224	66 %
Contacting funding sources	160	47 %
Writing boilerplate	83	25 %
Developing budgets	172	51 %
Typing	117	35 %
Other	31	9 %
Administration of internal research funds	160	47 %
No grant services provided	91	27 %

III

VARIATIONS IN GRADUATE EDUCATION AND RESEARCH ADMINISTRATION BY
MAJOR INSTITUTIONAL CHARACTERISTICS

Here we reexamine the topics discussed previously: sample description, the graduate faculty, graduate program evaluation, the administration of graduate academic procedures and decision-making, institutional funding for excellence in service delivery, and graduate school support of activities directed toward the acquisition of extramural grants and contracts. Instead of presenting nationwide data as before, we now examine the variations in graduate school structure and functioning when institutions are classified along the dimensions of highest degree offered, source of financial support, urbanization, faculty size, number of doctoral programs, number of master's programs, total student body size, and graduate student body size.

Description of the Sample

Having a large professional staff does not necessarily guarantee a similarly large clerical staff. The correlation between professional and clerical staff size among responding graduate schools is .43. Offering the doctorate is more closely associated with a graduate school's clerical staff size ($\tau_b = .38$, significant at less than .001) than the size of its professional staff ($\tau_b = .12$, significant at less than .05). Clerical staff size is also more sensitive than professional staff size to all five indices of institutional size. For example, the correlation between faculty size and FTE clericals is .45 while the parallel correlation with FTE professionals is .17. The number of faculty with temporary administrative appointments in the graduate school rises modestly with most indices of institutional size, the strongest correlation being .18 with the

number of doctoral degree programs. Urban setting and funding source are unrelated to any of these staffing variables.

Graduate deans rated approximately the same proportion of graduate programs as outstanding, good, fair and inferior regardless of institutional characteristics. It is not possible to say whether this is because the distribution of departmental excellence is similar across the nation or whether deans adjust their perceptions on a sliding scale so that they always rate a certain proportion of their programs as outstanding no matter what their objective quality. The only exceptions to the role of similar proportions across institutional types is that the proportion of programs rated as outstanding is likely to be higher where the numbers of master's degree programs, graduate students, and total students are low.

Tables 12 and 13 summarize stepwise regressions of the highest degree offered and proportion of graduate programs judged to be outstanding on selected institutional characteristics. Doctoral degrees are most likely to be offered in public institutions with large faculties and graduate student populations. Faculty size is by far the dominant variable in predicting whether the doctorate is offered. As with all cross-sectional research, the direction of causality cannot be established. For example, the offering of the doctorate could attract larger faculties instead of faculty size leading to doctoral status. Size of the total student body, normally thought of as a parallel variable to faculty size, enters the regression at the fourth step and its F value is not statistically significant. In contrast, none of the predictor variables in the regression of the proportion of graduate programs judged to be outstanding produced a statistically significant F value. It is evident that, at least in the eyes of

Table 12
Regression of Highest Degree Offered on Selected
Institutional Characteristics

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Faculty size	.44	.240	.037	.451	42.477***
Public/private ^a	.47	-.152	.059	-.144	6.750*
Number of grad. students	.48	.108	.035	.225	9.240**
Number of students ^b	.49	-.816	.048	-.152	2.829
Urban/rural setting ^b	.50	.421	.032	.069	1.773
(Constant)		1.095			

N = 334

* = significant at less than .05

** = significant at less than .01

*** = significant at less than .001

^a Public is scored as +; private as -.

^b Urban is scored as +; rural as -.

Table 13

Regression of Proportion of Graduate Programs
Judged to be Outstanding on Selected Institutional
Characteristics

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F*
Number of students	.12	-.201	.104	-.211	3.737
Number of doctoral programs	.18	.136	.069	.156	3.844
Faculty size	.20	.146	.086	.153	2.883
Number of master's programs	.21	-.773	.078	-.089	.969
Number of grad. students	.22	-.518	.079	-.060	.430
Constant		1.931			

N = 298

*None of the F's reach statistical significance at the .05 level.

graduate deans, outstanding graduate programs are not limited to the largest institutions or to those offering the doctorate.

Graduate Faculty

Table 14 presents the correlations between seven variables describing the graduate faculty and eight selected institutional characteristics. Correlations involving a research requirement for graduate faculty membership, teaching load, the proportion of graduate course taught by part-timers, and the proportion of faculty with graduate status are nearly all statistically significant at the .001 level. The proportion of graduate faculty time devoted to graduate education and having a minimum degree requirement for graduate faculty membership are not related to any institutional characteristics at this level, and faculty unionization is more likely to be found at public institutions and those not offering the doctorate. The larger institutions, those awarding the doctorate, and institutions offering a large number of graduate programs are likely to require research for graduate faculty membership, have a low graduate faculty teaching load, a small proportion of graduate courses taught by part-time instructors, and a high proportion of the total faculty with graduate faculty status.

An intercorrelation matrix of these dimensions of the graduate faculty reveals few correlations that are significant at the .001 level. Research is likely to be required for graduate faculty membership and the proportion of graduate courses taught by part-timers can be expected to be low where there is a minimum degree requirement for graduate faculty membership. Research is also likely to be found as a requirement for graduate faculty membership in institutions where a relatively small proportion of graduate courses is taught by part-timers and where the graduate faculty's teaching load is low.

Relationships Among Selected Institutional Characteristics and Dimensions of the Graduate Faculty

Institutional Characteristics	Graduate Faculty Dimensions ^a						
	Minimum Degree Requirement	Research Requirement	Teaching Load	% Grad. Courses Taught by Part-Timers	% of Faculty with Grad. Status	Faculty Unionized	% Grad. Faculty Time Devoted to Grad. Education
Highest degree offered	.02 (330)	.41*** (338)	-.54*** (321)	-.19*** (332)	.30*** (317)	-.20*** (337)	-.09* (311)
Private/public	.14** (330)	.12* (338)	-.02 (321)	-.31*** (332)	.17*** (317)	.23*** (337)	-.04 (311)
Urban/rural setting	-.04 (328)	.13** (336)	-.16*** (319)	.16*** (330)	-.07 (315)	-.03 (335)	-.08 (309)
Faculty size	.08* (328)	.34*** (336)	-.33*** (319)	-.28*** (330)	.17*** (315)	.00 (335)	-.04 (309)
Number of master's programs	.04 (327)	.25*** (335)	-.24*** (319)	-.23*** (329)	.37*** (314)	.02 (334)	-.02 (308)
Number of doctoral programs	.03 (330)	.35*** (338)	-.45*** (321)	-.26*** (332)	.31*** (317)	-.16** (338)	.01 (311)
Number of students	.12** (330)	.27*** (338)	-.16*** (321)	-.17*** (332)	.25*** (317)	.06 (337)	.05 (311)
Number of grad. students	.01 (330)	.20*** (338)	-.15*** (321)	-.06 (332)	.25*** (317)	.04 (337)	.02 (311)

^a All correlations are Tau b

* Significant at less than .05

** Significant at less than .01

*** Significant at less than .001

Graduate Program Evaluation

Research grants and publication rates are of particular importance in the graduate dean's assessment of graduate program quality in large institutions offering a diversity of graduate programs, including doctorates. Teaching quality is in just the reverse position, having greater importance in smaller institutions and those offering no doctorates than it does in larger doctoral institutions. Student enrollment and departmental reputation in the university are evenly distributed in American graduate schools and not of major importance in any specific category of institutions (see Table 15). Urbanization and source of funding (public/private) are not strongly related to any of the dimensions of graduate program evaluation.

Tables 16 and 17 present stepwise regressions of the importance of publishing and teaching quality in assessing graduate program quality on selected institutional characteristics and policies. Offering the doctorate is the most important determinant of publishing importance, followed by merit salary for both teaching and research, faculty size, and funds for grant development personnel. The most important determinants of teaching importance are funds for research by untenured faculty, faculty size and having sabbaticals for research. One can predict the importance of publishing (multiple correlation = .70) more successfully from other institutional policies and characteristics than one can predict the importance of teaching in assessing graduate program quality (multiple correlation = .41).

Deans who give high importance to publication rates are very likely to put a similarly high emphasis on the acquisition of research grants (Tau b = .69). A high emphasis on teaching is associated with a high emphasis on student enrollment (Tau b = .31) and departmental reputation within the institution

Table 15

Relationships Among Selected Institutional Characteristics and
Selected Factors Used by Deans to Judge Graduate
Program Quality^a

Institutional Characteristics	Program Quality Factors				
	Research Grants	Publications	Student Enrollment	Teaching	Internal Reputation
Highest degree offered	.50*** (330)	.50*** (333)	-.11* (328)	-.30*** (333)	-.10* (330)
Public/private ^b	.13** (330)	.14** (333)	-.03 (328)	-.02 (333)	.00 (330)
Urban/rural setting ^c	.08 (328)	.14** (331)	-.01 (326)	-.14** (331)	-.08* (328)
Faculty size	.44*** (328)	.46*** (331)	-.14** (326)	-.26*** (331)	-.08 (328)
Number of master's programs	.34*** (327)	.37*** (330)	-.07 (325)	-.17*** (330)	-.10* (327)
Number of doctoral programs	.42*** (330)	.43*** (333)	-.16*** (328)	-.23*** (333)	-.07 (330)
Number of students	.30*** (330)	.32*** (333)	-.15** (328)	-.21*** (333)	-.08* (330)
Number of grad. students	.26*** (330)	.27*** (333)	-.04 (328)	-.13** (333)	-.04 (330)

* Significant at less than .05

** Significant at less than .01

*** Significant at less than .001

^a All correlations shown are Tau b

^b Public is scored as +; private as -.

^c Urban is scored as +; rural as -.

Table 16

Regression of the Importance of Publishing in Assessing
Graduate Program Quality on Selected Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Highest degree offered	.55	.354	.102	.235	11.934***
Merit salary for research	.63	.413	.097	.248	18.194***
Faculty size	.67	.103	.063	.130	2.715*
Funds for grant development personnel	.68	.123	.045	.154	7.376***
Dean's resource allocation policy	.69	-.120	.076	-.082	2.480*
Sabbaticals for research	.69	.106	.080	.159	1.758
Funds for research graduate assistantships	.69	-.109	.061	-.123	3.286*
Public/private ^a	.70	.116	.093	.073	1.551
Urban/rural setting ^b	.70	.823	.049	.093	2.810*
Funds for teaching graduate assistantships	.70	.718	.054	.095	1.738
Number of master's programs	.70	.637	.055	.090	1.357
Sabbaticals for knowledge	.71	-.696	.082	-.100	.720
Constant		2.677			

N = 214

* Significant at less than .05

*** Significant at less than .001

^a Public is scored as +; private as -.

^b Urban is scored as +; rural as -.

Table 17

Regression of the Importance of Teaching Quality
in Assessing Graduate Program Quality on Selected
Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Funds for research by untenured faculty	.31	-.157	.054	-.252	8.595***
Faculty size	.35	-.882	.043	-.165	4.232**
Sabbaticals for research	.38	-.147	.060	-.323	6.087**
Sabbaticals for knowledge	.39	.984	.059	.208	2.771*
Number of doctoral programs	.40	.784	.041	.167	3.727*
Highest degree offered	.41	-.854	.078	-.083	1.186
Frequency of graduate program evaluation	.42	.700	.048	.090	2.096
Urban/rural setting ^a	.42	-.378	.038	-.062	1.001
Funds for teaching graduate assistants	.42	-.321	.035	-.062	.846
Funds for research by senior faculty	.43	.379	.057	.056	.441
Constant		.434			

N = 242

* Significant at less than .05

** Significant at less than .01

*** Significant at less than .001

^a Urban is scored as +; rural as -.

(Tau b = .28), and a low emphasis on publication (Tau b = -.29) and research grants (Tau b = -.25).

The larger the institution and its graduate offerings, the less frequently its graduate programs are formally evaluated. The structure of the evaluation--whether evaluated by a faculty committee, the administration, external evaluators or others--is unrelated to any of the basic institutional characteristics.

Graduate School Control of Academic Processes

In general, professional schools of business, education, law, medicine and other disciplines are not more likely to be independent of graduate school control in one type of an institution than another. The main exception to this is that business schools are more likely to be under the umbrella of the graduate school in public institutions located in areas of low population density than in private or urban institutions.

Signature authority for admission, the adequacy of student services to graduate students, and the review of student academic progress is as likely to be granted to graduate schools in one group of institutions as another, but graduate school authority over fellowships, committees for qualifying examinations, theses and dissertations, and the certification of degrees is most likely to be found in doctoral institutions of considerable size and diversity of graduate offerings. Large graduate schools and those offering many graduate programs are less likely than other graduate schools to have exclusive control over teaching assistantships. This tendency weakens for research assistantships and disappears entirely for fellowships and other forms of graduate student financial support. The dimension of source of funding is unrelated to most of these variables. Private institutions are more likely than public institutions to grant exclusive control over forms of financial aid other than fellowships and assistantships to

their graduate schools, but less likely to give them signature authority to certify degree completion.

Without exception, graduate schools having signature authority in one area are more likely than other graduate schools to have signature authority over all other areas of administrative concern. The strongest correlations are between certifying for graduation and reviewing academic progress ($\text{Tau } b = .49$) and between reviewing academic progress and admissions ($\text{Tau } b = .48$).

Funding for Excellence

Some areas of funding are essentially unrelated to institutional characteristics while others are particularly well supported in the large, doctoral granting institutions housing a great diversity of graduate offerings. Travel to conferences and to develop grants, the purchase of computers, books, journals and "other research equipment," resources to offer graduate courses often enough, and offering sabbaticals to improve faculty knowledge do not receive differential funding by institutional type, based on the responses of the graduate deans participating in the survey. Areas of funding in which the large, doctoral granting institutions have an edge over smaller, masters only institutions are research by untenured and senior professors, hiring personnel for grant development, and the support of graduate assistantships for both teaching and research. Funds for sabbaticals to do publishable research are most likely to be good or excellent in only those institutions offering doctorates, especially institutions with doctorates in many different disciplines. Two findings which do not fit the general pattern of results described above are that institutions with large student bodies are less likely than other institutions to have good or excellent funding to purchase library books, and public institutions are less likely than private institutions to have good or excellent funds for purchasing scholarly journals.

In Table 18, we show the regression of research sabbaticals on selected institutional characteristics. The stepwise regression produces a multiple correlation of .34, with significant F values at the level of .05 or better for the number of doctoral programs and source of funding. Table 19 parallels this analysis of sabbaticals to improve knowledge as the dependent variable. Only source of funding produces a statistically significant F value, and the multiple correlation plateaus at .21. Neither of these regressions shows much success in predicting sabbatical policies from institutional characteristics.

The matrix produced by correlating all areas of funding for excellence with each other does not contain a single negative correlation. Institutions having good or excellent funding for one type of activity or purchase are more likely than other institutions to also have good or excellent funding for all other categories of expenditures for educational excellence. This magnifies the gulf between research institutions and other universities. The highest correlation is between research sabbaticals and sabbaticals to improve knowledge ($\text{Tau } b = .81$). However, the most impressive and consistent cluster of inter-correlations involves travel to conferences and to develop grants, research by senior and by untenured professors, and funds to purchase both computers and other research equipment. These variables are all intercorrelated at the .001 level of statistical significance, with correlations ranging from .20 to .64.

Support for Grants Acquisition

The location of the grants unit in the organizational structure of the institution, signature authority for grant proposals, and technical assistance provided to faculty by the graduate school in the form of identifying and contacting funding sources, writing "boilerplate" and developing budgets for grants are not associated with any particular type of institution. Proposal typing is not likely to be provided by the graduate school where faculty size is

Table 18

Regression of Funds for the Existence of Sabbaticals to do Research
on Selected Institutional Characteristics

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Number of doctoral programs	.27	.261	.074	.245	12.556**
Public/private ^a	.31	-.401	.143	-.174	7.831*
Urban/rural setting ^b	.32	.960	.076	.072	1.590
Number of students	.33	.188	.109	.159	2.971
Number of grad. students	.34	-.119	.088	-.115	1.859
Constant		2.484			

N = 315

*Significant at less than .05

**Significant at less than .01

^a Public is scored as +; Private as -.

^b Urban is scored as +; rural as -.

Table 19

Regression of Funds for the Existence of Sabbaticals to Improve
Knowledge on Selected Institutional Characteristics

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Public/private ^a	.17	-.448	.136	-.200	10.880**
Faculty size	.19	.655	.096	.058	.470
Number of doctoral programs	.20	.599	.077	.059	.611
Number of grad. students	.20	-.108	.087	-.107	1.519
Number of students	.21	.113	.119	.100	.907
Constant		3.083			

N = 322

**Significant at less than .01

^a Public is scored as +; private as -.

small, and where there are many graduate degree programs. Internal research funds are least likely to be administered by the graduate school in universities offering doctoral degrees in only a few programs. The larger, doctoral granting institutions are most likely to hold memberships in national research societies.

Institutions that have assigned some grant support functions to their graduate schools are likely to have assigned others in addition. All correlations in the matrix of grant support functions are positive and nearly all of them are statistically significant at the .001 level. For example, graduate schools providing assistance in grant budget development are also likely to provide "boilerplate" (Tau b = .42), do proposal typing (Tau b = .39), and to identify (Tau b = .59) and contact (Tau b = .59) funding agencies on behalf of professors.

IV THE GRADUATE DEANSHIP

In this chapter, the professional development of graduate deans and their experiences on the job are analyzed starting with their personal backgrounds and continuing with the structure of their positions, how they are evaluated, faculty advisory committees and their daily job activities. The concluding sections deal with the major satisfactions and frustrations of the graduate deanship, and the deans' ratings of their institutions, their own careers and their futures.

Personal Backgrounds of Graduate Deans

Eighty percent of the graduate deans had been in higher education between 11 and 30 years, with three-quarters of the remaining deans having spent over 30 years in the field. Length of service at the present institution was also extensive for most deans. Only one in six had been at the current institution for five or fewer years. Forty-three percent of the deans had spent 11 to 20 years in the present institution, and 19 percent had served 21 to 30 years. The average time in the role of dean at the time of the survey was 5.9 years. The surprisingly small (11 percent) number of first year deans may reflect a response bias with new deans feeling unqualified to complete the questionnaire. On the other hand, the fact that 44 percent of the deans had served three or fewer years points up the need for continuous in-service training programs such as those provided by the Council of Graduate Schools.

Graduate degrees earned included master's degrees (74 percent of all deans), doctorates (92 percent) and other advanced degrees (6 percent). The most common disciplines in which graduate deans achieved their doctorates were education, including educational administration and adult or higher education (52 deans), history (20), chemistry (19), English (16), engineering (15), psychology (14) and

mathematics (12). The physical sciences were dominant among the less common doctoral fields. The "other" degrees were in professional fields ranging from medicine to religion, with half of these non-doctoral degrees being in the physical sciences. Most (61 percent) terminal degrees had been earned since 1960, and only 9 percent had been earned before 1950.

Job Structure

Chief executive officers in graduate education do not all hold the title of graduate dean. Just over half the deans (52 percent) hold the titles of graduate dean, dean, or dean of the graduate school and research. No other title is used in more than a handful of institutions. Among the alternative titles are director of the graduate school, dean of the graduate school and continuing education, vice-president for research, vice-president for academic affairs, associate vice-chancellor, associate provost and provost. All of the last five of these titles are commonly modified by adding "and graduate dean" or an equivalent phrase.

Just over three-quarters of the graduate deans serve in their role as deans solely at the pleasure of the administration. Most of the rest receive annual appointments. Deans not falling into either of these categories are more likely to hold five year contracts than contracts for two to four or more than five years. Although appointments as graduate dean have little formal protection in American universities, they generally have tenured faculty backup positions for job security. Eighty-three percent of the deans hold the rank of full professor and 85 percent have been granted tenure. Twelve graduate deans out of 338 are without faculty rank and presumably without any backup position should their duties as deans be terminated.

The Evaluation of Graduate Deans

Table 20 shows the frequency with which the graduate deans in the sample were evaluated. At one extreme, 42 percent of the deans were evaluated annually while at the other extreme, 28 percent were never formally evaluated. One cannot help wondering whether deans who are never formally evaluated receive enough feedback from their superiors to enable them to operate at full effectiveness. Inadequate feedback cannot be assumed on the basis of lack of formal evaluations since informal communications can be used by a skillful vice-president or provost to take the place of formal evaluations. Nor can annual evaluations be assumed to be meaningful in the face of anecdotal evidence that many of them are mere formalities.

The most common evaluator of graduate deans was the provost/academic vice-president (68 percent of all responding deans). Other evaluators were the president (29 percent), faculty (17 percent), and department chairs (11 percent). Deans who were evaluated by their provosts or academic vice-presidents were much more likely to serve at the pleasure of the administration, without even an annual contract to protect their position as dean, than deans who were evaluated by other administrators.

Faculty Advisory Committees

Graduate deans need to seek faculty advice on a variety of issues of relevance to their professional performance. Some sort of faculty advisory committee or general graduate policy is almost universal in the United States, as is a similar advisory committee on curriculum. In more than half the institutions, there are also faculty advisory committees for research support and for graduate student welfare. These data are summarized in Table 21.

There is danger in going against the advice of a faculty committee, yet graduate deans must exercise their own judgement even when it runs against

Table 20

Frequency of Graduate Dean's Formal Evaluations

Frequency of Evaluations	Number of Institutions	Proportion of the Sample
Annual	141	42 %
Two-Three Years	30	9 %
Four or More Years	69	21 %
Never	93	28 %
Total	333	100 %

Table 21
Existence of Faculty Advisory Committees

Committee	Number of Institutions	Proportion of Respondents
General policy	324	97 %
Curriculum	312	93 %
Research support	206	64 %
Graduate student welfare	174	54 %

prevailing faculty opinion. Just over a third of the deans followed faculty committee advice between 96 and 100 percent of the time, another third between 91 and 95 percent, and most of the remaining deans between 81 and 90 percent. It would be interesting to know more about the working conditions and management styles of the three deans who followed faculty committee advice no more than half the time and the 20 deans who did so on between 51 and 80 percent of faculty recommendations. Looking at the same subject from a different angle, faculty advisory committees were rated as very influential by 57 percent of the deans, influential by 34 percent, and somewhat influential by just under 9 percent.

The level of influence of faculty committees is consistent across all types of institutions, but the composition of the committee structure varies. Faculty committees for curriculum advice are less common where the number of doctoral programs is high. Similar committees on research are more common in public institutions and in universities with large faculties and student bodies, and having many master's programs.

Based on these responses, it is fair to say that graduate deans are very responsive to faculty opinion when it is expressed through a formal committee structure. It would be easier to argue that they are too responsive to the faculty committees (and therefore exercising too little professional judgement) than the reverse.

What Deans Do on the Job

There is always interest in how people in positions of power spend their time, and rightfully so. Their decisions affect the lives of many workers. The graduate deans survey included questions on teaching, committee membership, time devoted to various job tasks, and time that ought to be devoted to these tasks.

In Table 22, we see that nearly two-thirds of the graduate deans taught at least one course per year, and one in nine taught more than two courses per year.

Table 22
Teaching Responsibilities of Graduate Deans

Semester Hours Taught Annually	Number of Deans	Proportion of the Sample
None	117	35 %
One-Three	85	25 %
Four-Six	97	29 %
More than Six	36	11 %
Total	335	100 %

Table 23
Graduate Deans' Committee Memberships

Committee	Member*		Chair	
	Number of Institutions	Proportion	Number of Institutions	Proportion
Human subjects protection	59	18 %	28	8 %
Budget	130	38 %	8	2 %
Library	57	17 %	5	2 %
Major equipment	56	17 %	20	6 %
Graduate council	99	29 %	215	64 %
Computer resources	82	24 %	13	4 %
Research facilities	94	28 %	50	15 %

* Does not include chair memberships, which are listed separately.

We do not know whether they are taught by preference or because it was part of the job description. The following table details the deans' committee memberships, which do not appear to be excessive. Nearly all deans participate in the graduate council, or the equivalent, and most chair this committee. Other committee involvements are research facilities (43 percent), budget (40 percent), computer resources (28 percent), human subjects protection (26 percent), major equipment (23 percent), and library (19 percent). Graduate deans rarely chair any of these committees, the most common being research facilities (15 percent).

Although there is much talk about the inappropriateness of a considerable portion of the dean's time usage, the Spearman correlation between time actually devoted to 17 job task categories and time that the deans thought ought to be devoted to these tasks is .80 (see Table 24). The five heaviest uses of time reported were for conferences with administrators, formal committee meetings, conferences with faculty, preparing administrative reports and teaching. The deans felt that the rank order ought to be conferences with faculty, conferences with administrators, personal research, teaching, and formal committee meetings. The greatest disparities between "is" and the "ought" were for personal research and professional reading (on the positive side) and for preparing administrative reports and formal committee meetings (on the negative side).

Almost three-quarters of the graduate deans reported spending at least 10 percent of their time in formal committee meetings, with one in five spending between 20 and 60 percent of their time in these meetings. When juxtaposed with the findings on the kinds of committees in which graduate deans become involved, it appears that a number of deans spend much of their committee time in groups that are not central in the institutional governance structure of the

Table 24

Graduate Deans' Rankings of the Time They
Devote or Ought to Devote to Job Tasks

Task	Ranks*	
	Time Actually Devoted	Time Ought to be Devoted
Conferences with administrators	1	2
Formal committee meetings	2	5
Conferences with faculty	3	1
Preparing administrative reports	4	10
Teaching	5	4
General policy development	6	7
Budget	7	9
Curriculum development	8	8
Personal research	9.5	3
Representing the college externally	9.5	11
Professional reading	11	6
Personnel matters	12	14
Professional off-campus travel	13	12
Misc. other tasks	14	17
Support of grant acquisition	15	13
Internal research administration	16	15
Consulting	17	16

N = 164

*Spearman's rho is .80.

university. This is contrary to the policy statement developed by the Council of Graduate Schools in the United States.

Despite the diversity that characterizes American graduate schools, the job activities of their deans are relatively uniform. Graduate deans are as likely to teach, to be on the budget or library committee, and to devote a significant proportion of time to formal committee meetings in one type of an institution as another. This generalization holds for all 17 job task categories, with the single exception that graduate deans at doctoral institutions devote more time to personal research than their colleagues at master's institutions. This lends considerable support to the idea that there is some reality in the concept of a generic graduate deanship.

Satisfactions and Frustrations of the Graduate Deanship

Tables 25 and 26 present data on the satisfactions and frustrations of the graduate deans. The two general satisfactions that are most important to graduate deans are building academic structures (program development, 26 percent; policy development and implementation, 7 percent; perhaps also "having an impact on higher education," 17 percent) and pleasures derived from interpersonal relationships (working with students, 17 percent; working with faculty and staff, 17 percent; and personal relationships, 6 percent). Research and scholarship is a distant third, and only a few deans reported satisfactions related to relationships with the external community or working cooperatively with other administrators. The low level of satisfaction derived from management relationships is a negative commentary on the quality of the university administrators with whom graduate deans interact.

Two factors stand out among the frustrations reported by the deans: committee meetings and the same policy development/implementation complex that a much smaller number of deans found to be satisfying. Because graduate deans

Table 25
Major Satisfactions of the Graduate Deanship

Satisfaction	Listed as the Most Satisfying	Listed as One of the Three Most Satisfying
1. Program development	26 %	60 %
2. Working with students	17 %	52 %
3. Working with faculty and staff	17 %	50 %
4. Having an impact on higher education	17 %	39 %
5. Research and scholarship	8 %	32 %
6. Policy development and implementation	7 %	27 %
7. Personal relationships	6 %	21 %
8. Relationships with the external community	1 %	12 %
9. Cooperative management relations	0 %*	6 %
Total	99 %**	***

N = 288

* A single case

** Percentages do not sum 100 due to statistical rounding procedures

*** Percentages do not sum 100 because categories are not based on a single 100 percent breakdown.

Table 26
Major Frustrations of the Graduate Deanship

Frustration	Listed as the Most Frustrating	Listed as One of the Three Most Frustrating
1. Committee meetings	34 %	80 %
2. Policy development and implementation	31 %	82 %
3. Powerlessness	11 %	41 %
4. Working with faculty and staff	8 %	41 %
5. Atypical events	7 %	26 %
6. Working with students	6 %	15 %
7. Acquiring data processing	2 %	11 %
8. Tenure standards	0 %	2 %
9. Accreditation	0 %	1 %
Total	99 %*	**

N = 283

* Percentages do not sum 100 due to statistical rounding procedures

** Percentages do not sum 100 because categories are not based on a single 100 percent breakdown.

generally lack the power base that is found in subject-area colleges and schools, one might think that powerlessness would be a major problem. Only 11 percent identified this as the most frustrating aspect of their job, although 41 percent listed it as one of the three most frustrating factors. Other frustrations cited by more than a handful of graduate deans are working with faculty and staff, working with students and the atypical events that all too often cause difficulties for administrators.

Careers, Institutions and Futures

Comparing themselves with other academics of their age and qualifications, 44 percent of the graduate deans rated their careers as very successful, 55 percent as fairly successful, and 1 percent as unsuccessful. Comparing salary rather than careers produced a slightly less positive result. Thirty-four percent rated their salary as very successful, 57 percent as fairly successful, and 9 percent as unsuccessful. This difference no doubt reflects the awareness of some deans that they are paid considerably less per hour than the full professors (and possibly the associate professors) in their universities. These subjective ratings of career and salary are similar across institutional types, except that both career and salary success are higher where the number of doctoral programs is large, and salary success is higher where the faculty and student body are large.

The deans were also asked how they felt about their university. Twenty-two percent rated their institution nearly perfect, 58 percent as very good, 18 percent as fairly good and 2 percent as not good. Most deans (58 percent) did not regard their present positions as terminal. Approximately one third of those who intended to leave the deanship in the future expected to move up in the administrative hierarchy of higher education and a slightly smaller proportion expected to return to teaching and research. The others were generally unsure

of the nature of their next position, with a few choosing either business and industry (15 deans) or another deanship (16 deans). None of those distributions varied by institutional type. However, deans in unionized settings had less positive feelings about their institutions than deans in non-unionized institutions. Unionization was not related to any of the other variables discussed in this section.

V

The Structural Position of Teaching in
American Graduate Education

From an individualistic, psychological or anarchistic perspective, teaching quality is largely a matter of the characteristics, training and motivations of the professors. A structural social science perspective, on the other hand, conceptualizes the quality of teaching service delivery as being substantially determined by the place that teaching occupies in the organizational structure of the institution. Data derived from this latter perspective constitute the material of this chapter.

Teaching Loads

Teaching loads for graduate faculty (however defined) are as follows: 11 or more hours per week, 31 percent; 8-10 hours, 43 percent; 5-7 hours, 23 percent; and 4 or fewer hours, 3 percent. Corresponding figures for graduate deans are much lower: more than 6 hours per week, 11 percent; 4-6 hours, 29 percent; 1-3 hours, 25 percent; and no teaching at all, 35 percent.

The distribution of graduate faculty teaching loads by institutional type was discussed in Chapter III (see Table 14). Deans at institutions with high teaching loads at the graduate level place a strong emphasis on teaching in assessing graduate program quality (Table 27) and a relatively weak emphasis on publication rates (Table 28). This illustrates the divergence in the relative emphasis given to teaching and publishing in graduate education, and also the way in which standards of evaluation are integrated with fundamental characteristics of work conditions such as teaching load. More will be said about this later in the chapter.

Table 27

The Relationship Between Faculty Teaching Load and
the Importance of Teaching in Assessing Graduate Program Quality

Teaching Importance	Teaching Load		
	11 or More Semester Hours	8-10 Semester Hours	7 or Fewer Semester Hours
Very important	78 %	68 %	36 %
Less important	22 %	32 %	64 %
N	98	135	83

Tau b = .30, significant at less than .001.

Table 28

The Relationship Between Faculty Teaching Load and the
Importance of Publications in Assessing Graduate Program Quality

Publications Importance	Teaching Load		
	11 or More Semester Hours	8-10 Semester Hours	7 or Fewer Semester Hours
Very important	14 %	43 %	69 %
Important	44 %	44 %	25 %
Somewhat or not important	42 %	13 %	6 %
N	98	135	83

Tau b = -.42, significant at less than .001.

One might also expect that the dean's teaching load would be related to various institutional characteristics and policies. This is not true at all. Correlations involving the dean's teaching load are uniformly close to zero. This may be because a dean's decision to teach one or two courses is more a matter of personal preference than institutional policy, and therefore very different from the teaching load for the rest of the graduate faculty. Some evidence in support of this hypothesis is found in that the number of hours deans teach is directly related to the amount of time they think they ought to be devoting to teaching.

Tenure Decisions

The tenure decision is probably the most important crisis point in any professor's career. Because of tenure's critical nature, the relative importance of various performance factors in tenure evaluation is a crucial element in setting an institution's tone. Table 29 displays the relative rankings of six performance factors in their importance in tenure decisions. The rankings represent the graduate deans' opinions of what actually happens in their institutions, not their own personal preferences. We assume that graduate deans are sufficiently acquainted with institutional practices to be able to comment accurately on the tenure process, even though many of them do not participate formally in tenure evaluations. Teaching is clearly dominant in tenure decisions, securing 59 percent of the first choices. Research is a distant second, followed at a short distance by publications. University service, professional organization involvement, and community service hardly matter at all.

In Table 30, we see how the weighting of these six performance factors varies by institutional type. Teaching (and to a lesser extent community and university service) are weighted more heavily in relatively small institutions,

Table 29
Importance of Selected Factors in Tenure Decisions

Tenure Factors	Ranking in Importance*				N
	First	Second	Third	Other	
Teaching	59 %	11 %	28 %	2 %	324
Research	26 %	37 %	19 %	18 %	318
Publication	23 %	31 %	22 %	24 %	317
University service	1 %	16 %	7 %	77 %	305
Professional organization involvement	0 %	3 %	10 %	86 %	298
Community service	1 %	4 %	6 %	90 %	306

*Where percentages do not sum 100, it is due to statistical rounding procedures.

Table 30

Relationships Between Selected Institutional Characteristics
and the Weighting of Various Factors in Tenure Decisions

Institutional Characteristics	Factors in Tenure Decisions ^a					
	Teaching	Research	Publications	University Service	Professional Organization Service	Community Service
Highest degree offered	-.53*** (324)	.51*** (318)	.44*** (317)	-.35*** (305)	-.08 (298)	-.21*** (306)
Public/private ^b	-.12 (324)	.06 (318)	-.08 (317)	-.10* (305)	-.11* (298)	.04 (306)
Urban/rural setting ^c	-.25*** (322)	.19*** (316)	.20*** (315)	-.05 (303)	-.05 (296)	-.15** (304)
Faculty size	-.44*** (323)	.37*** (317)	.33*** (316)	-.21*** (304)	-.01 (297)	-.19*** (305)
Number of master's degrees	-.30*** (321)	.30*** (315)	.27*** (314)	-.19*** (302)	-.04 (295)	-.11* (303)
Number of doctoral programs	-.52*** (324)	.49*** (318)	.37*** (317)	-.29*** (305)	.03 (298)	-.19*** (306)
Number of students	-.29*** (324)	.23*** (318)	.24*** (317)	-.17*** (305)	-.03 (298)	-.10* (306)
Number of graduate students	-.29*** (324)	.24*** (318)	.22*** (317)	-.16*** (305)	-.01 (298)	-.05 (306)

* Significant at less than .05

** Significant at less than .01

*** Significant at less than .001

^a All correlations are Tau b.

^b Public is scored as +; private as -.

^c Urban is scored as +; rural as -.

institutions offering only master's degrees and those granting graduate degrees in a modest number of disciplines. In contrast, research and publications are weighted more heavily in the larger doctoral institutions and institutions offering graduate degrees in many disciplines. Research and publications occupy approximately the same position in the analysis. The contrast between teaching and research/publications is greatest on the dimension of highest degree offered, with correlations of $-.53$, $.51$, and $.44$ respectively.

Tables 31, 32, and 33 illustrate the kinds of relationships that exist between the weighting of performance variables in tenure decisions and other institutional policies. The greater the weighting of teaching in tenure decisions, the higher the teaching load and the lower the availability of funds for research by untenured faculty. At the same time, the faculty teaching load is inversely proportional to the importance of publications in tenure decisions.

This section concludes with three stepwise regressions--of the tenure importance of teaching, research, and publications serially on selected institutional characteristics and policies. Teaching importance in tenure decisions is best predicted by teaching load and the importance of research grants in the graduate dean's assessment of graduate program quality (the latter a negative beta weight). The weighting of research in tenure decisions is most closely associated with graduate teaching load (a negative beta), the importance of publications in assessing graduate program quality, and the dean's salary satisfaction. The first two of these three factors are also important predictors of the weighting of publications in tenure decisions. Multiple regression coefficients are high in the three analyses ($.60$, $.61$ and $.59$, respectively). However, the research and publications coefficients may be considered to be artificially inflated in that it is reasonable to argue that factors in tenure decisions and elements in the graduate dean's assessment of program quality are

Table 31

The Relationship Between Faculty Teaching Load and
the Importance of Teaching in Tenure Decisions

Teaching Importance	Teaching Load		
	11 or More Semester Hours	8-10 Semester Hours	7 or Fewer Semester Hours
Ranked first	90%	59%	20%
Ranked second	4%	13%	17%
Ranked lower than second	6%	28%	63%
N	98	133	78

Tau b = .48, significant at less than .001

Table 32

The Relationship Between the Availability of Funds
for Research by Untenured Faculty and the Importance
of Teaching in Tenure Decisions

Teaching Importance	Availability of Research Funds*		
	Excellent or Good	Fair	Poor
Ranked first	44%	65%	73%
Ranked second	14%	10%	11%
Ranked less than second	43%	25%	17%
N	115	116	85

Tau b = $-.23$, significant at less than $.001$

*Where percentages do not sum 100, it is due to statistical rounding procedures.

Table 33

The Relationship Between Faculty Teaching Load and
the Importance of Publications in Tenure Decisions

Publications Importance	Teaching Load		
	11 or More Semester Hours	8-10 Semester Hours	7 or Fewer Semester Hours
Ranked first	8%	19%	47%
Ranked second	18%	39%	32%
Ranked third	23%	28%	12%
Ranked lower than third	51%	14%	9%
N	96	129	77

Tau b = -.41, significant at less than .001

Table 34

Regression of Importance of Teaching in Tenure Decisions
on Selected Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Grad. faculty teaching load	.46	.375	.099	.283	14.302***
Importance of research grants in assessing grad. program quality	.53	-.338	.095	-.258	12.686***
External evaluators for grad. program	.55	-.271	.136	-.134	3.980*
Grad. school controls grad. student teaching assistantships	.57	.163	.175	.080	.870
Dean's rating of own salary	.58	-.202	.131	-.106	2.374
Grad. school controls grad. student research assistantships	.59	.230	.163	.116	1.982
Sabbaticals to do research	.60	-.710	.058	-.084	1.483
Constant		1.694			

N = 160

*Significant at less than .05

***Significant at less than .001

Table 35

Regression of Importance of Research in Tenure
Decisions on Selected Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Graduate faculty teaching load	.44	-.395	.103	-.278	14.578***
Importance of publications in assessing grad. program quality	.53	.264	.139	.171	3.606*
Dean's rating of own salary	.56	.260	.135	.129	3.697*
Grad. school controls re-research grad. assistantships	.58	-.294	.135	-.143	4.714*
Dean's tenure status	.59	.333	.231	.099	2.080
Funds for research by senior faculty	.60	.141	.091	.105	2.419
Importance of grants in assessing grad. program quality	.60	.181	.122	.133	2.192
% of grad. courses taught by part-time faculty	.61	-.974	.124	-.051	.618
Constant		1.938			

N = 162

* Significant at less than .05

*** Significant at less than .001

Table 36

Regression of Importance of Publications in Tenure
Decisions on Selected Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Importance of publications in assessing grad. program quality	.49	.458	.101	.316	20.587***
Grad. faculty teaching load	.54	-.301	.092	-.207	10.743***
Funds for research by senior faculty	.56	.195	.090	.128	4.654**
Dean's rating of own salary	.57	.207	.133	.090	2.437
Dean's resource allocation policy	.58	.180	.128	.081	1.989
Dean's tenure status	.58	.205	.182	.066	1.269
Importance of teaching in assessing grad. program quality	.58	-.129	.133	-.057	.934
Merit salary for research	.58	.133	.156	.054	.730
Sabbaticals for research	.59	.398	.058	.040	.470
Constant		2.435			

N = 230

** Significant at less than .01

*** Significant at less than .001

really indicators of the same basic dimensions of institutional orientation, usually codified in mission and goal statements.

Resource Allocation

Graduate deans rarely spend much money to upgrade fair or inferior programs. Maintaining outstanding programs or upgrading good programs so that they become outstanding comprise the resource allocation policies of 87 percent of the deans, as compared with only 3 percent who concentrate on upgrading fair or inferior programs (see Table 37). The tendency to centralize resources in the most prestigious programs is most pronounced in large institutions offering many doctoral programs. It is also most strongly represented in institutions that emphasize research and publications and place a relatively weak emphasis on teaching. The relationship between resource allocation and the importance of publications in assessing graduate program quality is illustrated in Table 38. Publications are very important in more than half of the institutions in which graduate deans concentrate their resources on maintaining outstanding programs, as compared with less than a third of the institutions in which graduate deans have a general policy of upgrading programs that are less than outstanding.

The regression shown in Table 39 suggests that the resource allocation policies of graduate deans are not greatly influenced by institutional characteristics. The multiple correlation reaches only .32, and none of the *F* values is statistically significant beyond the .01 level. Program upgrading is least likely to occur in private institutions offering many doctoral programs.

Merit Salary

Faculty salaries can be tied to a strict salary schedule (as in the California and Pennsylvania state systems) or they can be modified through merit procedures that are generally oriented toward teaching, research, or a combination of the two performance factors. In Table 40, we see that 72 percent

Table 37
Resource Allocation Policies of Graduate Deans

Allocation Policy	Number of Institutions	Proportion of the Sample
Maintain outstanding programs	107	36 %
Upgrade good programs	103	34 %
Both of the above	51	17 %
Upgrade fair or inferior programs	9	3 %
Other policies	31	10 %
Total	301	100 %

Table 3S

The Relationship Between The Dean's Resource Allocation Policy
and the Importance of Publications in Assessing Graduate
Program Quality

Publications Importance	Dean's Allocation Policy	
	Maintain Outstanding Programs	Upgrade Other Programs
Very important	53%	29%
Important	34%	44%
Somewhat or not important	13%	27%
N	184	116

Tau b = .23, significant at less than .001

Table 39

Regression of Dean's Resource Allocation Policy^a on
Selected Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Number of doctoral programs	.25	-.119	.039	-.246	9.178**
Public/private ^b	.27	-.151	.064	-.143	5.480*
Number of students	.29	.113	.046	.211	6.091*
Faculty size	.31	-.644	.046	-.123	1.953
Highest degree offered	.32	-.879	.068	-.088	1.690
Constant		1.873			

N = 295

*Significant at less than .05

**Significant at less than .01

^aMaintaining outstanding programs is scored as -; upgrading lesser programs as +.

^bPublic is scored as +; private as -.

Table 40
Use of Merit Salary Increases to Encourage Excellence

Category*	Number of Institutions	Proportion of the Sample
For teaching	236	72 %
For research	229	70 %
For both teaching and research	200	61 %
Neither	62	19 %

*Categories are not mutually Exclusive.

N = 327

of the reporting institutions distribute merit money for teaching and 70 percent do so for research. In most institutions, both teaching and research are awarded superior salary increments. Approximately one in every ten institutions rewards only teaching, with slightly fewer organizations rewarding only research. Almost one-fifth of the institutions award no merit pay for either teaching or research excellence.

Institutions in the sample are less differentiated by merit salary for teaching than by merit salary for research. That is to say, teaching merit salary is more evenly spread over different types of institutions than is research merit salary. The most important correlates of teaching merit salary are highest degree offered ($\text{Tau } b = .22$), faculty unionization ($\text{Tau } b = .22$) and a group of variables that index institutional resources for the support of research or emphasis on research productivity. Institutions that have enough money to reward research excellence are also likely to be in a position to reward excellence in teaching.

Merit salary for excellence in research is most likely to be found in large institutions offering many doctoral and master's degree programs, a significant research orientation, and good funding for many kinds of educational support services. The strongest correlations between educational support services and research merit salary are for internal grant support for senior and untenured professors ($\text{Tau } b = .28$ and $.21$, respectively), grant acquisition staff ($\text{Tau } b = .19$), and both teaching and research graduate assistantships ($\text{Tau } b = .20$ and $.17$, respectively). Institutions providing merit salary increments for excellence in research are likely to be members of the Council of Graduate Schools in the United States ($\text{Tau } b = .28$), but teaching merit salary is not so closely related to CGS membership and institutions rewarding only teaching are notably less likely than other institutions to hold CGS membership.

Tables 41 and 42 extend this analysis with stepwise multiple regressions. Not one of the F values in either table reaches the .001 level of significance. The multiple correlation is low (.32) for teaching merit salary and modest (.50) for research merit salary. The most important predictors of teaching merit salary are the dean's holding the rank of full professor and having a non-unionized faculty. Research merit salary is best predicted by highest degree offered, tenure for the dean, funds for research by senior faculty, and faculty size.

Graduate Education: A Dual System Without Dual Status for Teachers

At three-quarters of the institutions surveyed, the professors teach at least eight hours a week--three and sometimes four courses per semester in all but the natural sciences. These professors do not have enough time left after their teaching duties to devote intensive effort to research and other forms of scholarly and creative activity. They are teachers who do some research, not researchers who do some teaching. In only a quarter of the graduate institutions sampled do the faculty approximate the stereotype of researchers and scholars who have no more than modest involvement in the teaching enterprise.

Institutions adjust their teaching loads inversely to their standards of faculty research productivity. The equivalence of the two major categories of faculty performance is thus rationalized. The parallelism ends here, for there is no dual status system beyond the local university. Researchers have access to a national or international system of prestige which ties them closely to their disciplines and which enables them to move freely from one institution to another if institutional support weakens. Teachers, on the other hand, are usually observers rather than participants in national and international disciplinary organizations, and are tied to their current institution with little opportunity to sell their teaching capabilities on the job market.

Table 41
Regression of Merit Salary for Teaching on
Selected Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Dean's faculty rank	.21	.248	.083	.188	8.930*
Faculty unionized	.26	-.169	.069	-.155	5.996*
Funds for conference travel	.30	.585	.038	.110	2.428
Business curriculum considered part of graduate school	.31	.108	.075	.091	2.081
Funds for grant-related travel	.32	.315	.033	.067	.894
Constant		2.098			

N = 236

* Significant at less than .05

Table 42

Regression of Merit Salary for Research on Selected
Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Highest degree offered	.37	.188	.058	.206	10.349**
Tenure for the dean	.43	.222	.068	.175	10.595**
Funds for research by senior faculty	.46	.109	.034	.175	10.291**
Faculty size	.47	.103	.038	.214	7.363**
Number of students	.48	-.805	.039	-.161	4.370*
Private/public ^a	.49	.119	.058	.121	4.145*
Urban/rural setting ^b	.49	.601	.032	.108	3.600*
% of grad. faculty time devoted to grad. education	.50	.481	.034	.081	1.988
Constant		2.054			

N = 292

* Significant at less than .05

** Significant at less than .01

^a Private is scored as +; public as -.^b Urban is scored as +; public as -.

Just as researchers are better integrated into their disciplines than teachers, so are the research universities better integrated into national networks than teaching universities. This is not a discontinuous distribution. As research emphasis and research productivity increase, the integration of a university into national networks increases proportionally. Through these networks, research universities gain a voice in shaping national education policy. Teaching universities are less likely to participate in these networks, and therefore have less impact when national educational policies are debated. The Council of Graduate Schools in the United States is an important organization through which graduate schools, especially those with a strong research orientation, express their educational and political concerns.

Although teaching is formally dominant, it is research rather than teaching institutions that dominate national educational policy development. Research, not teaching, is the road to success in disciplinary status systems. Within universities, departments which emphasize research most heavily receive the bulk of available resources. This leads one to suspect that the formal emphasis on teaching in university policies concerning hiring, promotion, tenure, merit salary, and the allocation of funds for support services is subverted in practice. Unfortunately, the nature of the questionnaire data collected for this study precludes further analysis on this topic.

VI

Correlates of Unionization

Seventy-two (21 percent) of the institutions responding to the questionnaire are unionized. The most common affiliation is with the American Association of University Professors (23 institutions). Other prominent affiliations are with statewide system unions (16), the American Federation of Teachers (15), and the National Education Association (12). Seven unions are unaffiliated local organizations, and 26 have affiliations with more than one union at once.

Although a cross-sectional survey can not establish causal priority between unionization and other institutional characteristics, it is useful to observe these relationships and to speculate about the conditions which may have stimulated faculties to unionize.

Bivariate relationships between faculty unionization and a wide range of institutional characteristics and policies are generally weak, with correlations close to zero. Six of these correlations are statistically significant at the .001 level. In unionized institutions, the department is more likely (and the graduate dean less likely) to have the formal power to appoint committees to conduct qualifying examinations and to supervise research for master's and doctoral degrees. Unionized institutions appear to have less money available for most types of purchases and activities than non-unionized institutions. The strongest of these relationships is with travel to conferences, and is portrayed in Table 43. Unionized institutions are also less likely to award merit salary money for teaching alone or for both teaching and research. Finally, graduate deans in unionized settings feel less positively about their own institutions than graduate deans in non-unionized settings.

Table 43

The Relationship Between the Availability of funds for
Travel to Conferences and Faculty Unionization

Unionization	Funds for Conference Travel			
	Excellent	Good	Fair	Poor
Yes	4%	14%	25%	33%
No	96%	86%	75%	67%
N	25	96	141	69

Tau b = -.19, significant at less than .001

There is some indication in these findings that unionization may be promoted by inadequate institutional resources. No direct question about faculty salaries was included in the survey. However, it is reasonable to believe that institutions that are low on resources for most kinds of purchases and activities in support of excellence in educational service delivery, and also low on several categories of merit salary awards for superior service, are similarly poorly funded for faculty salaries. It may be that low salaries rather than the funding of purchases and activities ranging from library acquisitions to graduate assistants is a primary variable in stimulating unionization.

The negative correlation between unionization and the graduate dean's feelings about the institution would seem to be a commentary on the frustration deans feel when working in unionized settings. Powerlessness has often been perceived to be one of the major frustrations of the graduate deanship. Other data from the survey do not confirm unionism as a major problem of graduate deans. Union problems are not listed by the deans as one of the three main frustrations of their positions. They do not feel significantly less successful in their jobs than deans at non-unionized institutions, and they are not any more likely to anticipate leaving for another position. Upon further examination, it turns out that institutions with relatively poor resources for travel to conferences, library book purchases, research graduate assistants, and other educational support services are more likely than other institutions to have both unionized faculties and deans who have less than happy feelings about their university.

Faculty unionization is regressed on selected institutional characteristics and policies in Table 44. Four funding inadequacies appear in the regression, two of which produce statistically significant F values. These are funds for conference travel and funds for library books. Unionization is not well explained by the variables examined in the survey. The multiple correlation is

Table 44
Regression of Faculty Unionization on Selected
Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Funds for conference travel	.20	-.783	.031	-.161	6.343**
Sabbaticals to improve knowledge	.28	.409	.045	.104	.816*
Funds for library books	.30	-.640	.032	-.128	4.116*
Faculty teaching load	.32	.512	.036	.095	2.053
Funds for offering grad. courses	.33	-.489	.043	-.076	1.316
Sabbaticals to do research	.33	.441	.044	.118	.989
Funds for grad. student research assistantships	.34	-.209	.034	-.042	.384
Constant		1.434			

N = 252

*Significant at less than .05

** Significant at less than .01

only .34 and the F values are notably weak. The causes of unionization at most institutions are doubtless idiosyncratic to the local setting rather than a mechanical product of universal measures of institutional characteristics and policies.

VII
MEMBERSHIP IN THE COUNCIL OF
GRADUATE SCHOOLS IN THE
UNITED STATES

Who joins the Council of Graduate Schools in the United States? Or, to be more exact, what institutional characteristics and policies are predictive of CGS membership? Three-quarters of the responding deans are at institutions holding CGS membership, a higher proportion than is true nationally because the response rate of CGS members was considerable higher than the level of participation from non-members. As compared with their sister institutions, CGS members have the following characteristics.

1. Many doctoral and master's programs are offered.
2. The faculty, graduate student body, and total student body are large.
3. The clerical staff (but not the professional staff) is relatively large.
4. Funding for graduate teaching assistants is relatively high.
5. Merit salary raises are available for both teaching and research excellence.
6. The graduate school awards fellowships, coordinates financial aid for graduate students, and appoints committees to conduct qualifying examinations and to supervise research for graduate degrees.
7. To be a member of the graduate faculty, a professor must be active in research.
8. The graduate faculty teaching load is relatively low.
9. Few graduate courses are taught by part-time instructors.

10. A relatively high proportion of the total full-time faculty are members of the graduate faculty.
11. The graduate dean receives advice on research support matters from a faculty committee.
12. Graduate programs are evaluated relatively frequently.
13. The graduate dean emphasizes research grants and publications and deemphasizes teaching quality in assessing the quality of graduate degree programs. (The contrasting importance of teaching and research grants is clear from Tables 45 and 46.)

A fair summary of these differences is that the larger, better-funded graduate schools which emphasize research and publication are most likely to be CGS members. Most non-members are on the periphery of knowledge production, if not knowledge dissemination in graduate education. This impression is heightened by the regression of CGS membership on selected institutional characteristics and policies, which is summarized in Table 47. The main predictor variables producing F values statistically significant at the .05 level or better are faculty size, funds for graduate student teaching assistantships, FTE professionals in the graduate school, and number of doctoral programs.

Table 45

The Relationship Between the Importance of Teaching
in Assessing Graduate Program Quality and Council of
Graduate Schools Membership

CGS Membership	Teaching Importance	
	Very Important	Less Important
Yes	68%	87%
No	32%	13%
N	208	125

Tau b = $-.21$, significant at less than $.001$

Table 46

The Relationship Between the Importance of Research Grants
in Assessing Graduate Program Quality
and Council of Graduate Schools Membership

CGS Membership	Research Grants Importance		
	Very Important	Important	Somewhat or Not Important
Yes	94 %	81 %	47 %
No	6 %	19 %	53 %
N	109	123	98

Tau b = .41, significant at less than .001

Table 47

Regression of Council of Graduate Schools Membership
on Selected Institutional Characteristics and Policies

Independent Variables	Multiple Correlation	Unstandardized Regression Coefficient	Standard Error	Beta Weight	F
Faculty size	.40	.955	.043	.219	4.968***
Funds for grad. student teaching assistantships	.44	.644	.027	.152	5.825***
Importance of grants in assessing grad. program quality	.46	.453	.046	.090	.973
TE professionals in the graduate school	.48	-.157	.061	-.171	6.732***
Number of grad. students	.49	.325	.038	.084	.726
Number of doctoral programs	.51	-.772	.035	-.206	4.774***
Research required for grad. faculty standing	.52	.974	.054	.124	3.226**
Public/private	.53	.930	.058	.104	2.580*
Grad. faculty teaching load	.53	.799	.041	.153	3.828**
Number of students	.54	.765	.049	.173	2.408*
Highest degree offered	.54	.927	.072	.114	1.641
Importance of publications in assessing grad. program quality	.55	.624	.051	.117	1.482
TE clericals in the grad. school	.55	.398	.033	.102	1.488
Of faculty with grad. standing	.56	.414	.036	.076	1.295
Constant		.952			

n = 218

Significant at less than .05

*Significant at less than .01

**Significant at less than .001

Public is scored at +; private as -.

VIII CONCLUSIONS

In this concluding section, we summarize and briefly discuss the more interesting findings of our study of graduate deans in America.

1. The skew in the size of American graduate schools is severe.

At one end of the scale, 20 percent of the institutions have more than 3,000 graduate students, 14 percent have more than 8 professional graduate school staff, and 17 percent employ more than 8 clerical staff in the graduate school. At the other end of the continuum, 40 percent have fewer than 1,000 graduate students (half of them 500 or less), 68 percent have 3 or fewer professional staff (nearly half of them a single person), and 57 percent have 3 or fewer clerical staff (somewhat less than half of these being single individuals). The same pattern emerges when other dimensions are used to describe the range of graduate institutions. For example, more than half of the doctoral institutions offer fewer than ten doctoral programs, as compared with 13 percent which offer more than 50 doctoral programs.

The total picture of American graduate education is even more skewed than this, since all of the institutions enrolling fewer than 200 FTE graduate students and not listed as members of the Council of Graduate Schools in the United States were excluded from the sample. We tend to think of graduate education in terms of large universities having extensive resources and large staffs. That is a rather misleading view. Relatively little is known about graduate education in the small units. From this survey, we know how poorly funded and staffed most of these graduate schools are in comparison with large universities, but we have no data on their curricular offerings or the quality of

the experience that graduate students have on their campuses. We also know very little about how single person professional staffs (generally the "lonely dean") cope with the wide range of matters that they routinely confront. Graduate education in institutions with fewer than 1,000 graduate students should be the focus of further study in depth.

2. Research and graduate education are not synonymous. Once again, the model derived from the large, high status universities is misleading. Only a quarter of the graduate faculties teach as few as 7 credits per semester, and nearly a third teach 11 or more credits each semester. How much research can faculty carry out when they spend so many hours teaching, preparing to teach, grading, and counseling students? No wonder that most graduate schools do not require research activity for membership on the graduate faculty. Most grants units are not housed in the graduate school, and less than a third of the universities require a formal review by the graduate dean as indicated by signature authority before grants are submitted to funding agencies.

It might appear as if there are at least two very different kinds of graduate education in the United States, one of which has relatively little to do with the research enterprise. That is actually an oversimplification. Graduate schools may be more accurately portrayed as existing on a continuum ranging from knowledge creation (research) to knowledge dissemination (teaching). Some institutions are near the extremes, while most are found somewhere in between.

3. Faculty teaching quality is the factor most commonly used by graduate deans in judging program quality. Publications take second place, followed by research grants, national reputation, the placement of graduates, and the quality and number of applicants. The least important factors in judging program quality are conferences or workshops given, student attrition, fellowship awards, and time requirements for degrees. The diversity in graduate education nationally is

illustrated by the negative correlations between the importance of research and publishing and the importance of teaching in the graduate deans' assessments of program quality. Research and publishing receive their heaviest emphasis in large institutions offering a diversity of graduate programs, including doctorates.

4. Administrative centralization of graduate education has not yet been achieved in many universities. In more than a quarter of the institutions surveyed, the graduate school has no control over graduate assistantships. In a third, they do not review academic progress, and in nearly half, they do not appoint qualifying, thesis and dissertation committees. More than a fifth of the graduate schools do not control graduate admissions and one in six do not certify students for graduation. The impressive arguments favoring centralization put forth in a 1981 policy statement by the Council of Graduate Schools in the United States apparently have not had an impact in many universities.

5. Research is not adequately supported in most universities. According to the deans, funds for research-related expenses are often fair or poor. This is true at close to two-thirds of the universities, affecting funds for travel to develop grants, internally-funded research by senior and untenured faculty, research equipment, grant development personnel and graduate research assistants.

6. There are few commonalities in the characteristics of American graduate faculties. The only important commonality in the definition of graduate faculties nationally is that a terminal degree is required for faculty membership. Other characteristics vary from one type of institution to another. The larger universities, which display a wide range of curricular offerings (among which are doctorates), are more likely than their sister institutions to require research activity for graduate faculty membership, to have a low graduate faculty teaching load and a high proportion of courses taught by full-time

faculty, and to have awarded graduate faculty status to a high proportion of their faculty.

7. Graduate deans seem to be generally satisfied with the distribution of their work tasks. There is a striking similarity between the time graduate deans actually devote to 17 job task categories and the time they think ought to be devoted to these categories. The heaviest uses of time are for conferences with administrators, formal committee meetings, conferences with faculty, preparing administrative reports, and teaching. Unfortunately, graduate deans typically do not sit on most of the major university committees impacting graduate education. Much of their committee work is at a less influential level of institutional functioning, in contrast to a policy statement by the Council of Graduate Schools in the United States. This is, no doubt, a major reason why graduate deans are more likely to list committee work than anything else as the most frustrating aspect of their job. Despite the diversity that characterizes American graduate schools, the job activities of their deans are relatively uniform. This suggests that although graduate education is not a unitary phenomenon, it may be appropriate to speak of a generic graduate deanship.

8. Teaching is the most important factor in tenure decisions at most American universities. Research and publications are a distant second and third, respectively. Other factors hardly matter at all. Research and publications are weighted most heavily in those institutions that are large, offer graduate degrees in many disciplines, and grant doctorates.

9. Graduate deans concentrate their resources on good and outstanding programs. They rarely spend much money to upgrade fair or inferior programs. This is true in all types of institutions, although it is most commonly found in private institutions offering many doctoral programs. The large differences between the "haves" and the "have-nots" among institutions are therefore

replicated in the comparison among departments within institutions. The best programs are likely to get even better, and only those which are already good and have a chance of becoming outstanding are likely to receive much support from the graduate dean. Lesser departments are left to languish in the never-never land of academic mediocrity.

10. Most universities reward both outstanding teaching and outstanding research with merit salary increments. Teaching and research are equally likely to be considered in the determination of merit salary increments nationally, although this is not necessarily true in specific institutions. Merit salary for excellence in research is most likely to be found in large institutions offering many doctoral and master's degree programs, a significant research orientation, and funding for many kinds of educational support services.

11. A majority of American graduate professors are primarily teachers, not researchers. At three-quarters of the institutions surveyed, the professors teach eight or more hours a week. This means three courses per semester in all but natural science disciplines. Many graduate professors teach four courses per semester. With the immense drain of their resources into teaching, little effort can be devoted to research by these professors. We presume that only in the remaining quarter of the institutions do the faculty approximate the stereotype of researchers and scholars who have no more than modest involvement in the teaching enterprise.

12. The situation of teachers, teaching departments and teaching institutions is quite different from the situation of researchers, research departments and research universities. Graduate education constitutes a dual system in which research institutions dominate national educational policy development. Faculty achieve disciplinary fame through research and publication, not outstanding teaching. Research departments receive the bulk of the resources

allocated by graduate deans. Teaching universities are less likely than research universities to participate in national networks and formal organizations through which they might gain a voice in educational policy development. Teachers are much less likely than researchers to be active participants in national organizations and meetings or to develop the salable resumes that are necessary for mobility and advancement beyond their local institutions.

13. The causes of unionization in graduate institutions are probably largely idiosyncratic to the local setting. There are few national correlates of faculty unionization. However, there are a number of indications in the data that unionization is promoted by inadequate institutional resources.

14. The larger, better-funded graduate schools which emphasize research and publication are most likely to hold membership in the Council of Graduate Schools in the United States. Most non-members are on the periphery of knowledge production, if not knowledge dissemination, in graduate education.

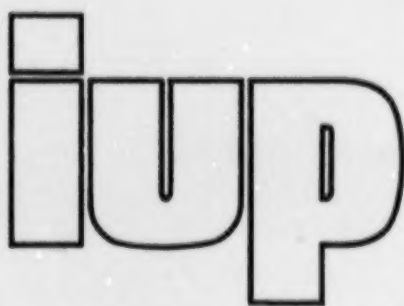
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